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(31) 0525286 (32) 13.12.2005 (33) GB(71) Applicant(s):
Saj Muzaffar
12 Blenheim Place, Steve Biko Way,
HOUNSLOW, Middx, TW3 3ED,
United Kingdom(72) Inventor(s):
Saj Muzaffar(74) Agent and/or Address for Service:
Saj Muzaffar
12 Blenheim Place, Steve Biko Way,
HOUNSLOW, Middx, TW3 3ED,
United Kingdom(51) INT CL:
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GB 2428386 A **GB 2422466 A**
GB 2270601 A **WO 2006/052632 A2**
US 5364108 A **US 20050070361 A1**(58) Field of Search:
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INT CL **A63F**
Other: **WPI, EPODOC**(54) Abstract Title: **Interactive DVD game system using multiple remote controls**

(57) A multi-player, micro-processor controlled gaming apparatus for use with a display 9 comprises two or more pointing devices 11, 14 each usable simultaneously by a respective competing player and arranged during play to generate different signals for controlling the display 9. The micro-processor controlled apparatus may comprise a digital video player 10, e.g. a DVD player, or may comprise a set-top box for use with a satellite or cable TV arrangement. The pointing devices may be wireless remote control handsets. The handsets may be programmable, and may each include an infrared receiver and means for learning infrared control signals received by the receiver. The received signals are preferably transmitted by a remote control associated with the digital video player (5, fig. 2) such that the gaming system handsets learn commands from the video player remote control. The handsets may comprise mobile communication devices, e.g. mobile telephones or PDAs. The handsets may each have a direction key 12, 15, the direction key of each handset being programmed to emulate a direction key (7, fig. 2) signal of the digital video player remote control. The apparatus is preferably used for playing a quiz game.

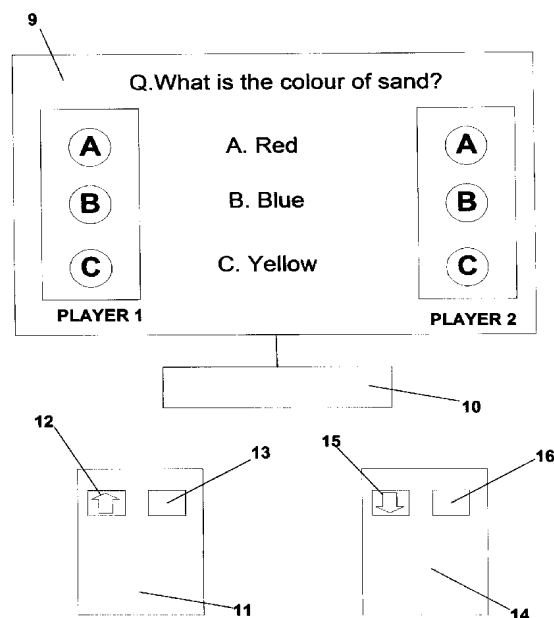


Fig. 3

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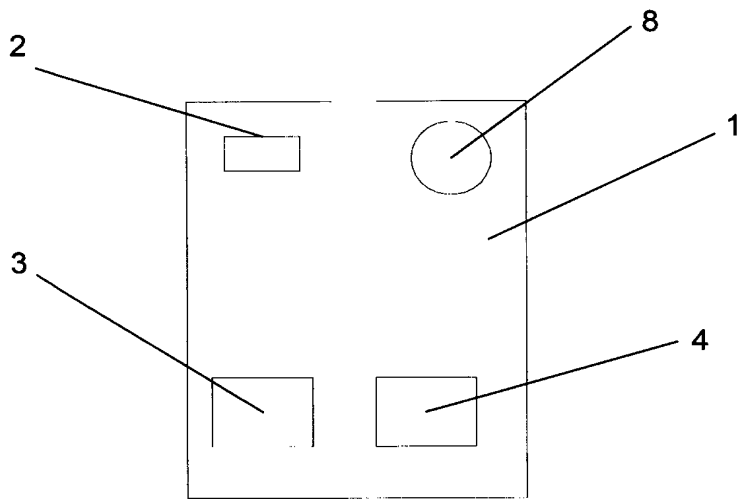


Fig. 1

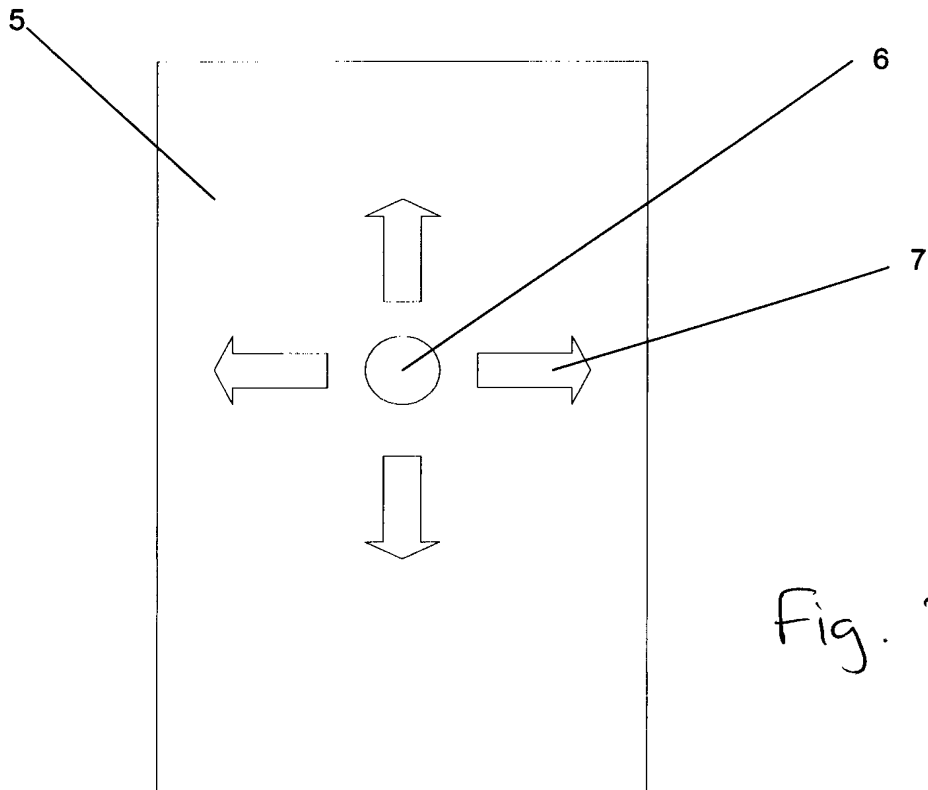


Fig. 2

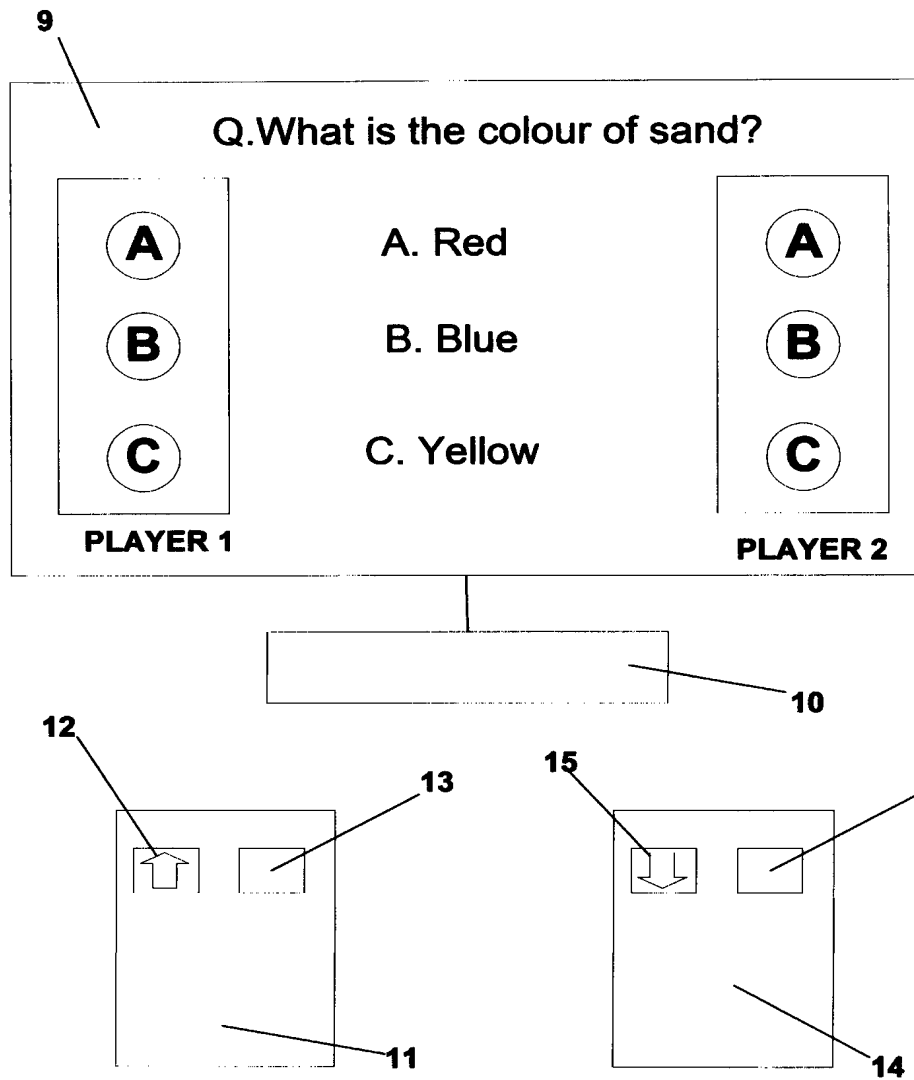


Fig. 3

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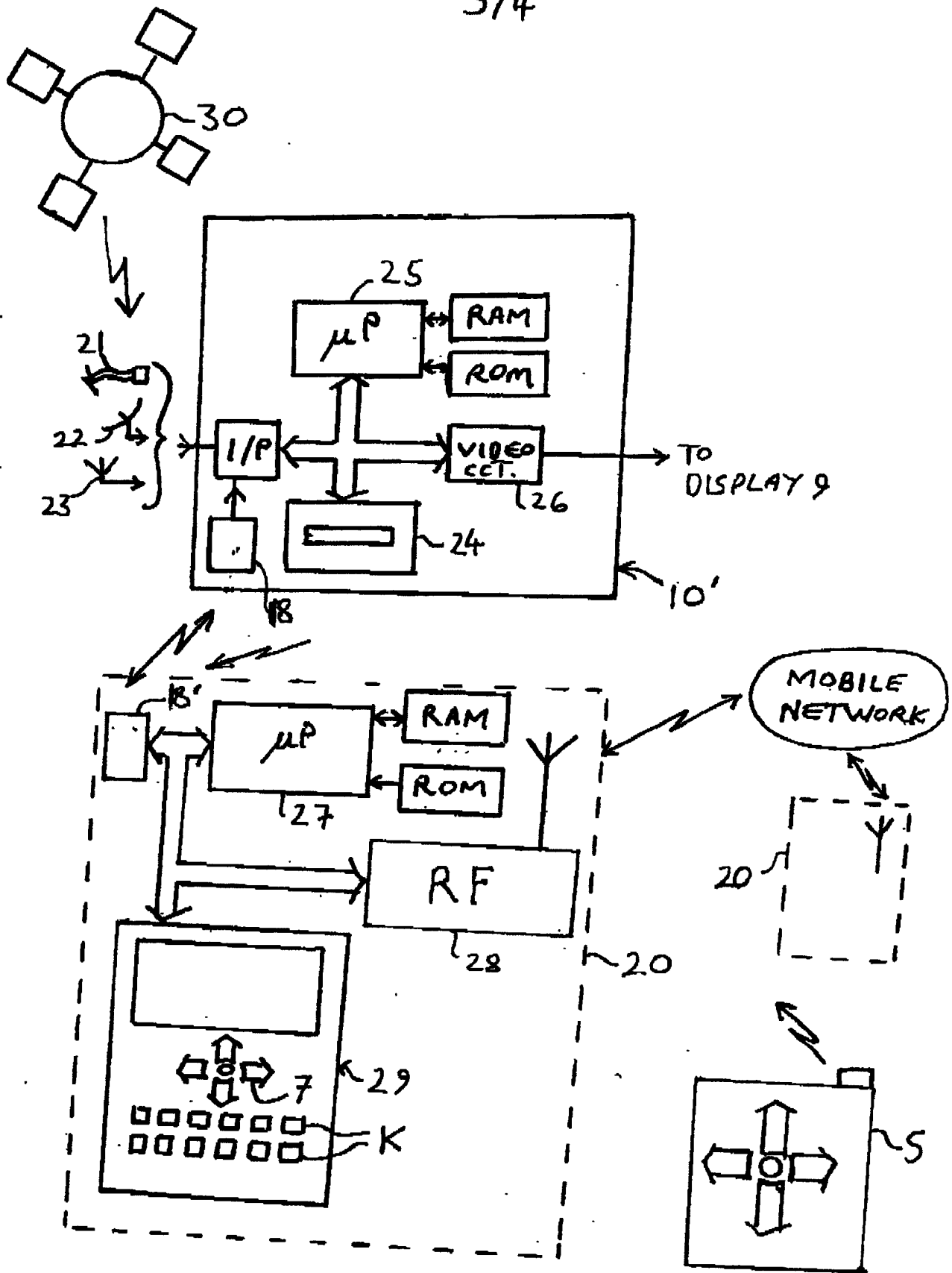


Fig. 4

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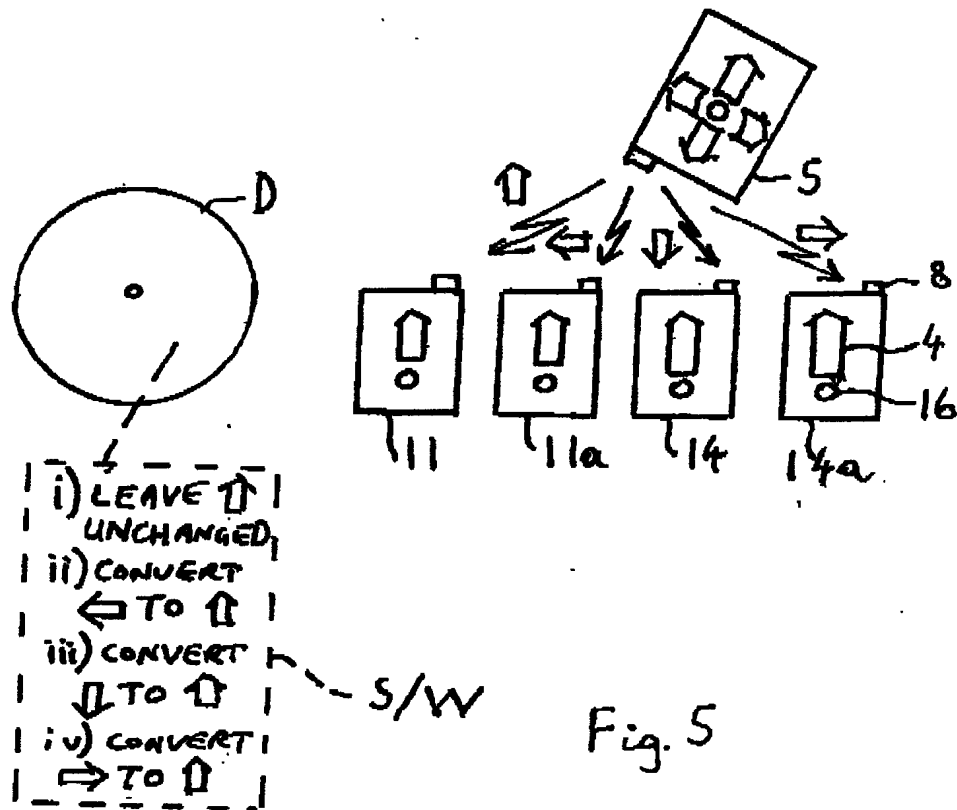


Fig. 5

Multi-player Gaming System and Method

The present invention relates to multi-player gaming apparatus, a method of playing a multi-player game, and a
5 digital data carrier and a set of wireless pointing devices for use in the method and apparatus. The invention relates particularly but not exclusively to interactive DVD games played on a conventional DVD player.

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Interactive DVD games are conventionally played by a player controlling play with buttons, roller-ball, a joystick or other selecting or pointing device via the remote control supplied with the DVD player.

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Some interactive DVD games have multiple player facility. However this requires the players to play by turn as there is only one remote control. This prevents competition in real time between the players and hence
20 much of the competitive fun element of the game is lost.

This limitation is inherent: existing DVD players are only designed to work with one remote control. It would be expensive to provide additional equipment allowing a
25 DVD player to support multiple remote controls, and it would be difficult to ensure compatibility with even the majority of the DVD players on the market.

It would also be desirable to provide a low-cost gaming
30 facility that could be added on to existing set-top boxes

and the like which are currently used with satellite TV and cable TV installations and are normally provided with a single remote control handset.

- 5 Accordingly, in one aspect the invention provides microprocessor-controlled multi-player gaming apparatus for use with a display and comprising two or more pointing devices usable simultaneously by the competing players and arranged during play to generate respective
10 different subsets of competing pointing signals for controlling the display.

Thus if the microprocessor and display combination are responsive to a given set of pointing signals from e.g. a
15 standard remote control handset the combination will be equally responsive to subsets of that set of pointing signals divided among respective pointing devices of competing players.

- 20 Preferably said competing pointing signals of respective pointing devices are identical in their effect on said display.

Preferably said wireless pointing devices are remote
25 control handsets.

Preferably said remote control handsets are programmable.

Preferably said wireless pointing devices each include an IR receiver and means for learning IR control signals received by the IR receiver.

- 5 Preferably the apparatus comprises a microprocessor-controlled unit arranged to receive said competing pointing signals and to control the display in response thereto. Preferably said microprocessor-controlled unit is a digital video player (preferably but not necessarily
10 in accordance with the DVD standard) or is a set-top box for use with a satellite or cable TV arrangement.

- In one embodiment the invention provides a low cost solution for a true multiple player interactive DVD game.
15 This embodiment comprises at least two low cost infra red remote controls controlled by players which are separate from the DVD player, the said remote controls being arranged to receive and learn (program) infra red codes from the original DVD remote control and generate infra-
20 red signals to control the interactive DVD game being played on the DVD player simultaneously. In principle the original remote control direction key functionality can be separated into up to four separate devices that have been programmed by the original DVD remote control in
25 order to work on all DVD players regardless of the infra-red codes used.

- In this embodiment an interactive DVD game can be played by up to four players simultaneously.
30

Preferably the remote control devices are hand-held and have a least one selection button.

In another embodiment said wireless pointing devices are
5 mobile communication devices - e.g. mobile telephones or PDA's.

In another aspect the invention provides a digital data carrier for use with a digital video player, said digital
10 data carrier having a digital video game recorded thereon in association with program means for modifying the processing of remote control signals by the digital video player whereby said digital video game can be played by competing players on said digital video player using
15 respective remote control handsets which generate competing pointing signals.

Preferably said program means is arranged in use to convert respective direction key signals from different
20 remote control handsets to a common direction key signal for controlling a display of the digital video player.

In another aspect the invention provides a set of two or more wireless pointing devices for controlling a display
25 of a microprocessor-controlled gaming apparatus, the wireless pointing devices being usable simultaneously by competing players and being arranged during play to generate respective different subsets of competing pointing signals for controlling the display.

30

Preferably said wireless pointing devices are remote control handsets.

Preferably said remote control handsets are programmable.

5

Preferably said wireless pointing devices each include an IR receiver and means for learning IR control signals received by the receiver.

10 Preferably said wireless pointing devices each include a direction key, the direction keys of the respective pointing devices being arranged to generate respective direction key signals which can be transmitted during play.

15

In one embodiment the said remote controls are programmed by placing a remote control in range of (e.g. in front of) the original DVD remote control, setting the said remote control in infra red learning mode and pressing a
20 least one button of the original remote control so that the said remote control receives, learns and store the said remote control from the said original DVDs remote control. This process may be repeated with further remote controls, each learning at least one infra-red signal
25 from said original DVD remote control.

In another aspect the invention provides a method of playing a
microprocessor-controlled multi-player game wherein two
30 or more wireless pointing devices are used simultaneously

by competing players and generate respective different subsets of competing pointing signals to control a game display.

- 5 Preferably said competing pointing signals are identical in their effect on said display.

In one embodiment said wireless pointing devices are remote control handsets.

10

The method preferably further comprises the preceding steps of receiving and storing transmitted wireless pointing signals in the wireless pointing devices.

- 15 Preferably said transmitted wireless pointing signals are IR signals transmitted from a IR transmitter of a local remote control handset.

- For example in one embodiment the infra-red code for each remote control to be used by the competing players can correspond to any one of the direction keys (UP, DOWN, LEFT, and RIGHT) on the original DVD remote control. Preferably each remote control is programmed with a different one of the said direction keys. In addition the ENTER key function may be programmed to all the programmable remote controls used by the competing players. By following this procedure the separate remote controls each have the ability to control one aspect of the original code.

30

The present invention is applicable particularly to a conventional DVD player running an interactive game normally played using the original DVD remote control. A set-top box remote control could be used instead of a DVD
5 player remote control to program the remote controls to be used by the competing players. The game run on the set-top box could be a broadcast or previously saved game for example.

10 A truly simultaneous multiple player facility can be provided, without requiring additional equipment beyond the remote control handsets (which can be low-cost) to be used by the players.

15 Preferably the system includes means to compare the above interaction with predefined interaction, e.g. answers to questions included in the game.

The game may be designed that so that the first
20 programmed remote control to send a signal corresponding to a correct answer is the only player to score a win score. Additionally or alternatively each player may be scored according to the speed of responding to question or the like being displayed on the display device (eg a
25 TV screen) connected to the DVD player or set-top box.

In the case of a quiz (e.g. run on an amusement machine) anyone with a suitable wireless device may be able to play on his or her wireless device. The system may be
30 arranged so that many players can compete against one

another during a game. In this case each player may be scored according to his or her accuracy and/or speed of answering questions. Each player's score may then be transmitted back to the amusement machine or game operator in order to find a winner.

The game may be a game show based game, a board game or a puzzle, a game of skill or chance or it may be a card game, roulette, or a horse race or the like.

Preferred embodiments of the present invention will now be described by way of example only with reference to the accompanying drawings, wherein:

Figure 1 is a diagrammatic representation of a remote control handset which can be used by a competing player;

Figure 2 is a diagrammatic representation of a remote control handset as provided with a DVD player and which is used to program the handset of Figure 1;

Figure 3 is a diagrammatic representation of gaming apparatus in accordance with one embodiment of the invention;

Figure 4 is a diagrammatic representation of gaming apparatus in accordance with another embodiment of the invention, and

Figure 5 is a diagrammatic representation of a DVD disc and set of remote control handsets in accordance with an embodiment of the invention.

- 5 Figure 1 shows a low cost two-key infra-red learning remote control unit 1, having an IR transmitter (not shown) for transmitting IR signals to a DVD player and incorporating a learn mode button 3, a programmable "direction key" button 4 and a programmable "enter"
- 10 button. In this embodiment up to three further similar remote control units (not shown) can be provided for use by respective competing players. An indicator LED 8 is provided.
- 15 Figure 2 shows an original remote control 5 of a DVD player including a DVD select or enter button 6 and a DVD "right direction" key 7. An IR transmitter (not shown) similar to that of the remote control unit 1 is provided.
- 20 In this embodiment the user has to first program each player's remote control unit, (currently, up to four separate remotes can be programmed), each with one of the four "direction" keys and the "enter" key. In order to program the remote 1 of Figure 1, the user switches the
- 25 remote to learn an infra-red code by means of switch 2, and then presses the button 3 he wants to program. LED 8 starts to flash. The user then points the original DVD remote control unit 5 towards the programmable remote control unit 1 and presses one of the direction keys. The
- 30 infra red signal is transmitted to the programmable

remote control unit, which reads, stores and allocates the code to the chosen button. Once this has been achieved the LED 8 stops flashing. The user follows a similar procedure to program the "enter" button 6.

5

The above process is repeated with the remote control units of each of the remaining players, except that they are each programmed with a different direction key of remote control unit 5.

10

Figure 3 shows a display device 9 (in this case a TV receiver) connected to a DVD player 10 which is shown displaying a multiplayer game screen. Two player selection menus are displayed, including three possible answers A, B and C to a question Q.

15

Player one's remote control 11, which is similar to that shown in Figure 1, has one selection button 12, programmed to send an UP direction key (pointing) signal and one "enter" button 13, programmed to send an ENTER signal to DVD player 10.

20

Player two's remote control 14 has one selection button 15, this time programmed to send a DOWN signal and one "enter" button 16 programmed to send an enter signal to the DVD player 10.

25

When the interactive DVD game is developed, each player's remote control is allocated a multiple choice player selection menu on the screen and by pressing the

30

selection button 12 or 15 on the programmed remote control 11 or 14, the next menu selection is highlighted. Pressing the selection button again causes the next adjacent option to be highlighted. Once the last menu option is reached the selection returns in cyclic fashion to the first option, e.g. A, B, C, then A, B, C until the enter button 13/16 is pressed. Therefore up to four players can play along, using programmed remote controls, although only two are shown in Figure 3.

10

In another embodiment the remote control may be a mobile phone or PDA, which has software installed (e.g. downloaded or loaded from a removable device e.g. a memory card) that enables the device to learn, store and transmit infra-red signals received from the original DVD remote control unit.

The software may be sent to the device by means of a local transmission, for example Bluetooth or IrDA, or it may be sent via means of an SMS or it may be downloaded by means of a WAP link or WAP push, which may have been sent to the device in response to an SMS sent from the unit.

Referring to Figure 4, a set-top box 10' (which has input circuitry I/P for receiving TV signals from cable 21, a satellite 30 and satellite dish 22 or a terrestrial TV aerial 23) is provided with a microprocessor 25 which is arranged to run a video game from a DVD loaded into a disc reader 24. The set-top box outputs a corresponding

video signal from video circuitry 26 to a display 9
(Figure 3). The set-top box is also provided with an IR
port 18 which is arranged to receive IR pointing signals
from any one of two or more wireless pointing devices 20,
5 one of which is shown in detail in Figure 4.

As shown, in this embodiment the devices 20 are mobile
communications devices, having RF transceiver circuitry
28 and an antenna for coupling to a MOBILE NETWORK as
10 shown, as well as a keyboard 29 including a small display
and alphanumeric keys K and direction keys 7. Each
mobile communication device 20 is controlled by a
microprocessor 27 equipped with conventional RAM and ROM,
the microprocessor being programmable to store and learn
15 infrared pointing signals which can be transmitted from
an IR port 18' to IR port 18.

The mobile communication devices 20, which are otherwise
conventional, are programmed to receive respective
20 direction key signals transmitted from a remote control
unit 5 originally provided with the set-top box 10' via
their IR ports. The mobile communication devices 20 can
then be operated in a gaming mode in which depression of
any direction key 7 on the keyboard causes the stored
25 pointing signal to be transmitted from IR port 18' and to
highlight a different option in a displayed menu as
previously described with reference to Figure 3. An
"enter" button at the centre of the array of direction
keys 7 can then be pressed to select the highlighted
30 option.

In variants of this embodiment, the IR pointing signals utilized by the mobile communication devices 20 to control set-top box 10' could be:

- 5 a) received as WAP signals from the MOBILE NETWORK,
 or
- b) received at the set-top box 10' from broadcast TV
 signals (e.g. in a manner analogous to teletext
 signals), or
- 10 c) received from the IR port 18 of the set-top box
 10' after being read from the DVD or another
 removable data carrier.

The learning mode for a set of four wireless pointing
15 devices 11, 11a, 14 and 14a for use in a variant of the
 above embodiment, is illustrated in Figure 5. A remote
 control handset used for controlling the set-top box 10'
 transmits four direction key signals to the respective
 wireless pointing devices 11, 11a, 14 and 14a, namely an
20 UP signal to pointing device 11, a LEFT signal to
 pointing device 11a, a DOWN signal to pointing device 14
 and a RIGHT signal to pointing device 14a. When thus
 programmed, pointing device 11 can transmit only UP
 pointing signals, pointing device 11a can transmit only
25 LEFT pointing signals, pointing device 14 can transmit
 only DOWN pointing signals and pointing device 14a can
 transmit only RIGHT pointing signals.

Thus each pointing device has a subset
30 (UP/DOWN/LEFT/RIGHT) of the four pointing signals

recognized by the set-top box. In a variant, two pointing devices could be used, one programmed to transmit (say) UP and DOWN pointing signals and the other programmed to transmit LEFT and RIGHT pointing signals.

- 5 The software S/W would then translate LEFT and RIGHT signals to UP and DOWN respectively.

In order to ensure that the set-top box responds in the same manner to the four signals transmitted from the
10 respective pointing devices 11, 11a, 14 and 14a, it can be appropriately programmed by software S/W loaded onto a DVD D in association with the game software. As shown in Figure 5, this software has the following functions:

- i) UP signals are left unchanged
- 15 ii) LEFT signals are converted to UP signals
- iii) DOWN signals are converted to UP signals
- iv) RIGHT signals are converted to UP signals

in this manner the set-top box responds identically to
20 pointing signals transmitted from any of the four pointing devices.

In yet another embodiment a games console may be used instead of a DVD player or set-top box.

Claims:

1. Microprocessor-controlled multi-player gaming
5 apparatus for use with a display and comprising two or
more pointing devices usable simultaneously by the
competing players and arranged during play to generate
respective different subsets of competing pointing
signals for controlling the display.
- 10 2. A gaming apparatus according to claim 1 wherein said
competing pointing signals of respective pointing devices
are identical in their effect on said display.
- 15 3. A gaming apparatus according to claim 1 or claim 2,
wherein said wireless pointing devices are remote control
handsets.
4. A gaming apparatus according to claim 3 wherein said
20 remote control handsets are programmable.
5. A gaming apparatus according to claim 3 or claim 4
wherein said wireless pointing devices each include an IR
receiver and means for learning IR control signals
25 received by the IR receiver.
6. A gaming apparatus according to claim 1 or claim 2,
wherein said wireless pointing devices are mobile
communication devices.

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7. A gaming apparatus according to any preceding claim wherein said wireless pointing devices each include a direction key, the direction keys of the respective pointing devices being arranged to generate respective direction key signals which are transmitted during play to a local wireless receiver of the apparatus and converted to a common direction key signal irrespective of the wireless pointing device from which they originated.
- 10
8. A gaming apparatus according to any preceding claim which comprises a microprocessor-controlled unit arranged to receive said competing pointing signals and to control the display in response thereto.
- 15
9. A gaming apparatus according to claim 8 wherein said microprocessor-controlled unit is a digital video player or is a set-top box for use with a satellite or cable TV arrangement.
- 20
10. A gaming apparatus according to any preceding claim wherein said wireless pointing devices each include means for generating a selection signal which acts on a region of the display addressed by a pointing signal.
- 25
11. A gaming apparatus according to any preceding claim which comprises means for generating at least one menu on said display and wherein pointing signals of the respective pointing devices are arranged to compete during play to select options from said menu.
- 30

12. A gaming apparatus according to claim 11 wherein said menu options are answers to displayed questions.

5 13. A digital data carrier for use with a digital video player, said digital data carrier having a digital video game recorded thereon in association with program means for modifying the processing of remote control signals by the digital video player whereby said digital video game
10 can be played by competing players on said digital video player using respective remote control handsets which generate competing pointing signals.

14. A digital data carrier according to claim 13 wherein
15 said program means is arranged in use to convert respective direction key signals from different remote control handsets to a common direction key signal for controlling a display of the digital video player.

20 15. A set of two or more wireless pointing devices for controlling a display of a microprocessor-controlled gaming apparatus, the wireless pointing devices being usable simultaneously by competing players and being arranged during play to generate respective different
25 subsets of competing pointing signals for controlling the display.

16. A set according to claim 15 wherein said wireless pointing devices are remote control handsets.

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17. A set according to claim 16 wherein said remote control handsets are programmable.

18. A set according to claim 15, claim 16 or claim 17
5 therein said wireless pointing devices each include an IR receiver and means for learning IR control signals received by the receiver.

19. A set according to claim 16, claim 17 or claim 18
10 wherein said wireless pointing devices each include a direction key, the direction keys of the respective pointing devices being arranged to generate respective direction key signals which can be transmitted during play.

15 20. A set according to any of claims 16 to 19 in association with a digital data carrier according to any of claims 13 to 15.

20 21. A method of playing a microprocessor-controlled multi-player game wherein two or more wireless pointing devices are used simultaneously by competing players and generate respective different subsets of competing pointing signals to control a game display.

25 22. A method according to claim 21 wherein said competing pointing signals are identical in their effect on said display.

23. A method according to claim 21 or claim 22 wherein said wireless pointing devices are remote control handsets
- 5 24. A method according to claim 21, 22 or 23 further comprising the preceding steps of receiving and storing transmitted wireless pointing signals in the wireless pointing devices.
- 10 25. A method according to claim 24 wherein said transmitted wireless pointing signals are IR signals transmitted from a IR transmitter of a local remote control handset.
- 15 26. A method according to any of claims 21 to 24 wherein said wireless pointing devices are mobile communication devices.
- 20 27. A method according to claim 26 as dependent on claim 24 wherein said transmitted wireless pointing signals are downloaded from a mobile communications network.
- 25 28. A method according to any of claims 21 to 27 wherein said game is run on a video player or a set-top box of a satellite or cable TV arrangement having a wireless remote control receiver which receives said competing pointing signals.
- 30 29. A method according to any of claims 21 to 28 wherein at least one menu is presented on said display and

wherein said competing pointing signals of the respective pointing devices are arranged to compete during play to select options from said menu.

5 30. A method according to claim 29 wherein said menu options are answers to displayed questions.

31. Microprocessor-controlled multi-player gaming apparatus substantially as described hereinabove with
10 reference to Figures 1 to 3 or Figures 4 and 5 of the accompanying drawings.

32. A digital data carrier for use with a digital video player, said digital data carrier being substantially as
15 described hereinabove with reference to Figure 5 of the accompanying drawings.

33. A set of two or more wireless pointing devices for controlling a display of a microprocessor-controlled
20 gaming apparatus, the wireless pointing devices being substantially as described hereinabove with reference to Figure 5 of the accompanying drawings.

34. A method of playing a microprocessor-controlled
25 multi-player game, the method being substantially as described hereinabove with reference to Figures 1 to 3 or Figures 4 and 5 of the accompanying drawings.

Amendments to the claims have been filed as follows

1. Microprocessor-controlled multi-player gaming apparatus for use with a display and comprising two or
5 more pointing devices usable simultaneously by the competing players and arranged during play to transmit different pointing signals to a local wireless receiver of the apparatus, wherein the received pointing signals are converted to a subset of the transmitted pointing
10 signals whereby each pointing device can navigate a displayed player selection menu in competing fashion.

2. A gaming apparatus according to claim 1 wherein said pointing devices are arranged to generate said pointing
15 signals using direction keys.

3. A gaming apparatus according to claim 2 having two pointing devices, one of which is arranged to transmit first and second direction key signals and the other of
20 which is arranged to transmit third and fourth direction key signals, the received first and second direction key signals being converted to third and fourth direction key signals respectively for navigating said displayed menu.

25 4. A gaming apparatus according to claim 2 having four pointing devices arranged to transmit first, second, third and fourth direction key signals respectively, wherein the first, second and third received direction key signals are converted to a fourth direction key
30 signal for navigating said displayed menu.

5. A gaming apparatus according to claim 1 or claim 2 wherein said converted received pointing signals of respective pointing devices are identical in their effect on said display.

6. A gaming apparatus according to any preceding claim, wherein said wireless pointing devices are remote control handsets.

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7. A gaming apparatus according to claim 6 wherein said remote control handsets are programmable.

8. A gaming apparatus according to claim 6 or claim 7 wherein said wireless pointing devices each include an IR receiver and means for learning IR control signals received by the IR receiver.

9. A gaming apparatus according to any of claims 1 to 5, wherein said wireless pointing devices are mobile communication devices.

10. A gaming apparatus according to any preceding claim which comprises a microprocessor-controlled digital video player or comprises a microprocessor-controlled set-top box for use with a satellite or cable TV arrangement.

11. A gaming apparatus according to any preceding claim wherein said wireless pointing devices each include means for generating a selection signal which acts on a

displayed menu region of the display addressed by a pointing signal.

12. A gaming apparatus according to any preceding claim
5 which comprises means for generating menus on said display associated with the respective pointing devices and wherein pointing signals of the respective pointing devices are arranged to compete during play to select options independently from said associated menus.

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13. A gaming apparatus according to claim 12 wherein said menu options are answers to displayed questions.

14. A digital data carrier for use with a digital video
15 player, said digital data carrier having a digital video game recorded thereon in association with program means for modifying the processing of remote control signals by the digital video player whereby said digital video game can be played by competing players on said digital video
20 player using respective remote control handsets, said program means being arranged in use to convert pointing signals from the remote control handsets to a subset of such pointing signals for navigating a displayed menu in competing fashion.

25

15. A method of playing a microprocessor-controlled multi-player game wherein two or more wireless pointing devices are used simultaneously by competing players and transmit different pointing signals to a local wireless
30 receiver of the apparatus, wherein the received pointing

signals are converted to a subset of the transmitted pointing signals whereby each pointing device can navigate a displayed player selection menu in competing fashion.

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16. A method according to claim 15 wherein said pointing devices generate said pointing signals using direction keys.

10 17. A method according to claim 16 wherein two such pointing devices are used, one of which transmits first and second direction key signals and the other of which transmits third and fourth direction key signals, the received first and second direction key signals being
15 converted to third and fourth direction key signals respectively for navigating said displayed menu.

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....
20 18. A method according to claim 16 wherein four such pointing devices are used and are arranged to transmit first, second, third and fourth direction key signals respectively, wherein the first, second and third received direction key signals are converted to a fourth direction key signal for navigating said displayed menu.

25 19. A method according to claim 15 or claim 16 wherein said competing pointing signals are identical in their effect on said display.

20. A method according to any of claims 15 to 19 wherein said wireless pointing devices are remote control handsets.
- 5 21. A method according to any of claims 15 to 20 further comprising the preceding steps of receiving and storing transmitted wireless pointing signals in the wireless pointing devices.
- 10 22. A method according to claim 21 wherein said transmitted wireless pointing signals are IR signals transmitted from a IR transmitter of a local remote control handset.
- 15 23. A method according to any of claims 15 to 21 wherein said wireless pointing devices are mobile communication devices.
- 20 24. A method according to claim 23 as dependent on claim 21 wherein said transmitted wireless pointing signals are downloaded from a mobile communications network.
- 25 25. A method according to any of claims 15 to 24 wherein said game is run on a video player or a set-top box of a satellite or cable TV arrangement having a wireless remote control receiver which receives said competing pointing signals.
- 30 26. A method according to any of claims 21 to 28 wherein menus associated with the respective pointing devices are

presented on said display and wherein pointing signals of the respective pointing devices are arranged to compete during play to select options independently from said associated menus.

5

27. A method according to claim 29 wherein said menu options are answers to displayed questions.

28. Microprocessor-controlled multi-player gaming
10 apparatus substantially as described hereinabove with reference to Figures 1 to 3 or Figures 4 and 5 of the accompanying drawings.

29. A digital data carrier for use with a digital video
15 player, said digital data carrier being substantially as described hereinabove with reference to Figure 5 of the accompanying drawings.

30. A set of two or more wireless pointing devices for
20 controlling a display of a microprocessor-controlled gaming apparatus, the wireless pointing devices being substantially as described hereinabove with reference to Figure 5 of the accompanying drawings.

31. A method of playing a microprocessor-controlled
25 multi-player game, the method being substantially as described hereinabove with reference to Figures 1 to 3 or Figures 4 and 5 of the accompanying drawings.

27

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Examiner: Mr Brendan Donohoe

Claims searched: 1, 13, 15 & 21 at least

Date of search: 28 February 2007

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X,E	1-5, 8-13, 15-25, 28-34	GB 2422466 A FFYNNON GAMES - See whole document, especially page 1 line 21 - page 5 line 32, and page 9 line 20 - page 13 line 31.
X,E	1-5, 8-13, 15-25, 28-34	GB 2428386 A FFYNNON GAMES - See whole document, especially page 2 lines 12-21, page 3 lines 8-15, page 5 line 21 - page 7 line 16.
X,E	1-5, 8-13, 15-25, 28-34	WO 2006/052632 A2 MATTEL - See whole document, especially page 5 onwards.
X	1-5, 7-9, 13-25, 28	US 5364108 A WSNOUF - See especially col 3 line 56 - col 5 line 23, col 7 line 1 - col 8 line 31, and col 13 lines 21-32.
X	1-3, 8-13, 15, 16, 19-23, 28-30	US 2005/0070361 A1 LAU - See especially paragraphs 0048-0080 & 0117-0138.
X	1, 3, 8, 10, 15, 16, 21, 23	GB 2270601 A SILITEK - See especially figure 1A, and page 6 line 15 - page 7 line 10.

Categories:

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category	P	Document published on or after the declared priority date but before the filing date of this invention
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^x :

A6H

Worldwide search of patent documents classified in the following areas of the IPC

A63F

The following online and other databases have been used in the preparation of this search report

WPI, EPODOC

DERWENT-ACC-NO: 2007-615386**DERWENT-WEEK:** 200834*COPYRIGHT 2009 DERWENT INFORMATION LTD*

TITLE: Microprocessor-controlled multi-player gaming apparatus for board game, has pointing devices for navigating displayed player selection menu, and converts received pointing signals to subset of transmitted pointing signals

INVENTOR: MUZAFFAR S**PATENT-ASSIGNEE:** MUZAFFAR S[MUZAI]**PRIORITY-DATA:** 2005GB-025286 (December 13, 2005)**PATENT-FAMILY:**

PUB-NO	PUB-DATE	LANGUAGE
GB 2433211 A	June 20, 2007	EN
GB 2433211 B	May 21, 2008	EN

APPLICATION-DATA:

PUB-NO	APPL- DESCRIPTOR	APPL-NO	APPL-DATE
GB 2433211A	N/A	2006GB- 002090	February 2, 2006

INT-CL-CURRENT:

TYPE	IPC DATE
CIPP	A63F13/02 20060101
CIPS	A63F9/18 20060101

ABSTRACTED-PUB-NO: GB 2433211 A**BASIC-ABSTRACT:**

NOVELTY - The apparatus has pointing devices (11,14) usable simultaneously by competing players, that transmit different pointing signals to a local wireless receiver of the apparatus. The received pointing signals are converted to a subset of the transmitted pointing signals. The pointing device is used to navigate displayed player selection menu in a competing fashion.

DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) digital data carrier storing digital video game;
- (2) method of playing microprocessor-controlled multi-player game; and
- (3) set of wireless pointing devices.

USE - For playing board game, game show based game, puzzle, card game, roulette and horse race.

ADVANTAGE - The cost effective apparatus enables real time competition between players.

DESCRIPTION OF DRAWING(S) - The figure shows the gaming apparatus.

Display device (9)

DVD player (10)

Pointing devices (11,14)

Selection buttons (12,15)

Enter buttons (13,16)

CHOSEN-DRAWING: Dwg.3/5

TITLE-TERMS: MICROPROCESSOR CONTROL MULTI PLAY
GAME APPARATUS BOARD POINT DEVICE
NAVIGATION DISPLAY SELECT MENU
CONVERT RECEIVE SIGNAL SUBSET
TRANSMIT

DERWENT-CLASS: P36 T01 W01 W04

EPI-CODES: T01-C01A; T01-C03C; T01-C07C3; T01-
H01B6; T01-J10E; T01-J21; T01-J30B;
W01-C01D3C; W04-X02B1;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: 2007-479000